

Appl. No. : 09/671,800
Filed : September 28,2000

AMENDMENTS TO THE CLAIMS

Claims 93 and 95-101 were pending prior to entry of these amendments. Claims 97-99 are withdrawn. Please amend Claims 93, 95, 96, 100, and 101. Please add new claim 102.

1.-92. (Canceled)

93. (Currently amended) A method of forming a planar conductive structure usable in manufacturing an interconnect for an integrated circuit, the method comprising:

providing a substrate having a top portion that includes a surface portion and a cavity portion, wherein the cavity portion has at least a first cavity having a width of less than one micron and a second cavity having a width larger than 10 microns; and

depositing a planar conductive layer, ~~as deposited, that is formed~~ within the cavity portion and on the surface portion, wherein the planar conductive layer, as deposited, has such that a predetermined thickness range of the planar conductive layer over the surface portion that is between one tenth and one half of the thickness of the planar conductive layer within the cavity portion.

94. (Canceled)

95. (Currently amended) The ~~structure~~ method of claim 93, wherein providing comprises forming the top portion ~~includes~~ by depositing an insulator layer and a barrier layer overlying said insulator layer and ~~wherein forming the cavities are formed in the insulator layer after depositing the insulator layer.~~

96. (Currently amended) The ~~structure~~ method of claim 93, wherein the planar conductive material comprises copper or copper alloy.

97. (Withdrawn) A conductive bead structure usable in manufacturing an interconnect for an integrated circuit comprising:

a substrate having a top portion that includes a surface portion and a cavity portion, wherein the cavity portion has at least a first cavity having a submicron width and a second cavity having a width larger than 10 microns; and

conductive beads formed within each cavity, wherein each conductive bead protrudes above a level of the surface portion of the substrate and is confined within a respective cavity.

Appl. No. : **09/671,800**
Filed : **September 28,2000**

98. (Withdrawn) The structure of Claim 97, wherein the top portion includes an insulator layer and a barrier layer overlying said insulator layer, and wherein the cavities are formed in the insulator layer.

99. (Withdrawn) The structure of Claim 97, wherein the planar conductive material comprises copper or copper alloy.

100. (Currently amended) An integrated circuit formed by the method ~~including the structure~~ of claim 93.

101. (Currently amended) The ~~structure~~ method of claim 93, wherein the planar conductive material comprises copper.

102. (New) The method of claim 93, wherein depositing is electrochemical mechanical deposition, comprising:

feeding an electrolyte to the top portion, wherein the electrolyte is in contact with an anode; and

contacting a pad to the top portion while feeding the electrolyte while moving the substrate and pad with respect to each other.